

JAN 22 2007

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571-273-7665**REMARKS**

The Office Action dated September 20, 2006 has been received and considered. In this response, claims 10, 12, 13, and 15-20 have been amended. Claims 11 and 21 have been canceled without prejudice. Support for the amendments may be found in the specification and drawings as originally filed. Reconsideration of the outstanding rejections in the present application is respectfully requested based on the following remarks.

Interview Summary

Examiner Wang is thanked for extending the courtesy of an interview on December 27, 2006 to discuss claim rejections under section 101 and section 112. Examiner Wang indicated that reciting the output of information at the method claims would overcome the section 101 rejections; that replacing the term "variable" with the term value in the claims was a helpful amendment, but wanted more time to review; that claims 16 and 17 need to be amended to recite structures that are running; that the term "control information" as proposed could be applied to something other than the code that performs the recited steps. No specific agreements were made.

Section 101 Rejection of Claims 10-21

Beginning at page 2 of the Office Action, claims 10 - 21 are rejected under 35 U.S.C. § 101 because the claimed inventions are directed to non-statutory subject matter. This rejection is hereby respectfully traversed.

Claim 10

Beginning at page 2 of the Office Action, the Office rejects claim 10 under section 101 stating

The base claim 10 recites incrementing ..., decrementing, and determining These steps set forth in claim 10 are merely mathematical operation at best embodied in a computer algorithm. Computer algorithm [sic] is a non-statutory subject matter. Computer programs claimed as computer listings per se, i.e., the

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descriptions or expressions of the programs, are not physical "things". They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized.

Moreover, the claim 10 merely recites the steps of mathematical operations without any tangible output/result being rendered/produced. Given the absence of any practical effect or significant independent physical acts, the applicants' claim fails to adequately define the claimed invention within the domain of patentable subject matter. The claimed invention as a whole must accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-2.

Applicants respectfully disagree with the rejection of claim 10 under section 101.

The Office rejects claim 10 as being an abstract idea by equating claim 10 to a mathematical operation. It is understood that while abstract ideas, such as mathematical algorithms, are not eligible for patenting, methods and products employing abstract ideas to perform a real-world function may themselves well be eligible for patenting. For example, where a claim containing an otherwise abstract idea is for a practical application, patentability is found. (See Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility (Interim Guidelines), page 20.)

As discussed at section IV.C.2.b of the Interim Guidelines, in determining whether a claim is for a practical application, the focus is not on whether each individual element achieves a particular result that is useful, tangible and concrete, but rather whether the final result achieved by the claimed invention is useful, tangible and concrete. Claim 10 recites a useful result -- determining an index value to access a coefficient set -- that is for a practical application -- scaling of an image -- as required by the Interim Guidelines at Section IV.C.2.b.(1). Claim 10 also recites a tangible result, i.e., a real world result. Specifically, an index value that can access a coefficient set as recited at claim 10 is an actual number that is clearly tangible. Otherwise it would not be capable of accessing the coefficient set as recited at claim 10. Claim 10 also recites a concrete result in that the index value is a result that is repeatable as required by the Interim

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Guidelines. Therefore, claim 10 is statutory under section 101 in that it is limited to a specific application as put forth in the Interim Guidelines.

While it is believed that independent claim 10 is fully compliant with the requirements of section 101, the limitations of claim 11 have been incorporated into claim 10 in the interest of furthering prosecution. Claim 10, as amended, further recites accessing, at a data processor, from a computer readable medium the coefficient set from a computer readable medium based on the index value, and determining a scaled pixel value based upon the coefficient set, and outputting the scaled pixel value from the data processor. Therefore, claim 10, as amended, further recites additional a useful, tangible and concrete results. Claim 11 has been canceled without prejudice.

Claims 12-15 depend from claim 10, and therefore are fully compliant with the requirements of section 101 for at least the reasons put forth above. Withdrawal of the rejections of claims 10 and 12-15 is respectfully requested.

Claim 16

The Office rejects claim 16 under section 101 stating that claim 16 merely recites a series of mathematical operations without a tangible output/result, and that a computer algorithm is non-statutory. It is respectfully noted however, that a means plus function claim, such as claim 16, is a structure and therefore is necessarily not an algorithm and necessarily not abstract. In addition, the recited index value is part of a specific application further assuring the statutory compliance of claim 16 under section 101. Therefore, withdrawal of the rejection of claim 16 under section 101 is requested.¹

Claim 17

The Office rejects claim 17 under section 101 stating that claim 17 merely recites a series of mathematical operations without a tangible output/result being produced. However, claim 17 recites is a structure, e.g., a system, that includes a data processor for executing instructions that

¹ It is respectfully noted that requiring structure claims, such as claims 16 and 17, would result in a structure that had to be operating, i.e. outputting data, to be statutory. Clearly this is not a proper standard.

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is for producing a useful, tangible and concrete result, e.g., an index value, as discussed above. Withdrawal of the rejections of claim 17 is respectfully requested.²

Claim 18

The Office has rejected claim 18 stating that it is

“...directed to a computer readable media storing control information for implementing a plurality of operations. First of all, the claimed computer readable storage media has not been claimed to be employed as a computer component. Secondary, ‘control information’ does not constitute the computer-executable instructions for performing the steps set forth in the claim 10.”

The Office further states that claim 18 needs to be amended to recite a computer-readable storage medium encoded with computer-executable instructions causing a computer to perform the steps of or similar language to ensure the computer-readable storage medium is being employed as a computer component. Applicants respectfully disagree with the rejection of claim 18.

It is understood that data structures that do not define any structural and functional interrelationships between the data structure and other claimed aspects of the inventions are not statutory. However, according to the Interim Guidelines, Annex IV, a claimed computer-readable medium encoded with a data structure that defines structural and functional interrelationships between the data structure and the computer software and hardware components that permit the data structure’s functionality to be realized are statutory. The Interim Guidelines further state that “[o]nly when the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material per se and hence nonstatutory.”

At the request of the Office, the preamble of claim 18 has been amended, and now recites, “a computer readable storage medium encoded with control information causing a computer to perform the operations of.” Claim 18, as amended, therefore recites a computer readable medium encoded with control information, and not a mere listing, whereby claim 18 further defines the necessary structural and functional interrelationships between the control information, such as instructions or control words that control the operation of a computer, and

² It is respectfully noted that requiring structure claims, such as claims 16 and 17, would result in a structure that had to be operating, i.e. outputting data, to be statutory. Clearly this is not a proper standard.

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the computer as required in the Interim Guidelines. Withdrawal of the rejections of claim 18 under section 101 is, therefore, respectfully requested.

Claim 19

Claim 19 has been amended to recite scaling the number of input pixels based on the selected N filter phases to obtain output pixels to obtain output pixels and output the output pixels from a data processor. As such, claim 19 meets the statutory requirements of section 101, in that it recites a useful, tangible and concrete result, e.g., scaling, as previously discussed. Withdrawal of the rejection of claim 19, and claim 20, which depends from claim 19, under section 101 is respectfully requested.

Section 112, second paragraph Rejections of Claims 10-21

Beginning at page 10 of the Office Action, claims 10-18 are rejected under 35 U.S.C. § 112, second paragraph.

Claim 10

While it appears that Applicants' use of the term "variable" in claim 1 is definite and distinctly claims the subject matter regarded as the invention, in the interest of furthering prosecution, claim 10 has been amended to replace the term —with the term value—, to avoid an indefinite interpretation. Other claims have been similarly amended to replace the term "variable" as discussed above.

Claim 19 has been amended to provide antecedent support as suggested by the Office, and to clarify that the term "N" refers to the number of filter phases used during a scaling cycle.

Claim 20 has been amended to clarify the use of the term "S" as requested by the Office.

Withdrawal of the rejections under section 102, second paragraph is respectfully requested.

Section 112, first paragraph Rejections of Claims 10-21

Claims 10-18 and 19-21 are rejected by the Office beginning at page 8, under section 112, first paragraph as failing to comply with the written description requirement.

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With respect to claim 10, the Office states that the claim 10 recitation of "decrement, in response to the first adjusted value being greater than a second [value], the adjusted value by one or more times the second [value] indicative of the number of output pixels in the scaling cycle" is not supported by the specification. Applicants respectfully disagree.

It is first noted that claim 10 has been amended to replace the term "variable" with the term "value" as previously discussed. FIG. 4 illustrates a specific embodiment, whereby an adjusted value, e.g., the Current Phase from 322, can be decremented by more than one time at 326 of FIG. 4 as the result of multiple loops through 324 also of FIG. 4. Therefore, one skilled in the art would appreciate that the loop at FIG. 4 that includes 324 and 326 can decrement, the first adjusted value by one or more times the second value as recited at claim 10.

The Office indicates that $2X+1$ available phases is not supported by the disclosure. Therefore, claim 19 has been amended to replace the term " $2X+1$ available filter phases" with the term " $2(X-1)+1$ available filter phases", which is supported by the specification.

Withdrawal of the rejections of claims 10-21 under section 112, first paragraph is respectfully requested based upon the amendments and remarks herein.

Conclusion

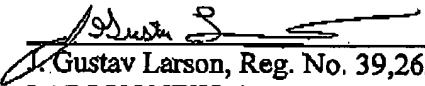
The Applicants respectfully submit that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

The Applicants believe no additional fees are due, but if the Commissioner believes additional fees are due, the Commissioner is hereby authorized to charge any fees, which may be

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required, or credit any overpayment, to Deposit Account Number 50-1835.

Respectfully submitted,


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